

## WHAT IS CLAIMED IS:

1. A method for manufacturing a transflective thin film transistor liquid crystal display, which comprises the  
5 steps of:

forming a gate electrode on an insulating substrate;

forming a gate insulating film on the insulating substrate including the gate electrode;

forming an active layer and an ohmic contact layer on  
10 the gate insulating film;

forming source/drain electrodes on the insulating substrate including the active and ohmic contact layers in such a manner that the source/drain electrodes overlap with the ohmic contact layer;

15 forming a protective film on the insulating substrate including the source/drain electrodes;

forming a resin layer on the protective film;

exposing the resin layer to light through one mask, so that a contact hole is formed at one region of the resin  
20 layer, and concave/convex portions having the desired concave/convex portions are formed on the other region of the resin layer; and

forming a reflective electrode on the entire upper surface of the resulting substrate including the contact

hole and the concave/convex portions.

2. The method of Claim 1, which additionally comprises the step of subjecting the resin layer to backside exposure to remove a portion of the resin layer remaining below the  
5 contact hole, after the step of exposing the resin layer to light.

3. The method of Claim 1, which additionally comprises the steps of partially removing the protective film and then  
10 forming a transparent electrode on the exposed portions of the drain electrode and the insulating substrate, before the step of forming the resin layer.

4. The method of Claim 1, wherein the resin layer has  
15 a thickness of 1-4  $\mu\text{m}$  or 2.5-3  $\mu\text{m}$ .

5. The method of Claim 1, wherein the concave/convex angles have a Gaussian distribution with a peak value of 4 to 6°.

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6. The method of Claim 2, wherein the backside exposure is conducted at an exposure dose of 350-3,500  $\text{mJ}/\text{cm}^2$ .

7. The method of Claim 1, wherein a region of the substrate where the contact hole is formed has a greater step height than a region of the substrate where the concave/convex portions are formed.

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8. The method of Claim 7, wherein the region where the contact hole is formed has a three-layered structure of the source and gate electrodes at the lower portion thereof, and the region where the concave/convex portions are formed has  
10 a single-layered structure at the lower portion thereof.

9. The method of Claim 7, wherein the step height difference is lower than 1  $\mu\text{m}$ .

15 10. The method of Claim 7, wherein a portion of the resin layer where the contact hole is formed is removed upon the exposure step to expose the layer under the removed portion of the resin layer, while the concave/convex portions having the determined concave/convex angles are  
20 formed on the resin layer.

11. The method of Claim 7, which additionally comprises the step of completely removing a portion of the protective layer to obtain an additional step height

difference of about 4,000 Å or more.

12. The method of Claim 7, wherein the contact hole formed in the organic insulating film consists of a central  
5 contact hole and a parasitic contact hole.

13. The method of Claim 7, wherein the reflective electrode and the source electrode come in contact with each other at a width of 3-5 μm through the contact hole.

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14. The method of Claim 7, wherein the reflective electrode and the transparent electrode come in contact with each other at a width of 3-5 μm through the contact hole.

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15. The method of Claim 1, wherein the contact hole is formed as large as the transmissive region such that the contact hole is formed to the same size at the same position as the transmissive region.

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16. The method of Claim 1, wherein the concave/convex portions have a polygonal, circular, fan or linear shape.

17. The method of Claim 16, wherein the concave/convex portions allow the optical characteristics of the liquid

crystal display to be adjusted depending on the length of the radius thereof, the size of the central angle thereof, the interval between the centers thereof, and the arrangement thereof on pixels.

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18. The method of Claim 16, wherein the fan-shaped concave/convex portions are disposed on one pixel in large numbers, or on plural pixels in one number.

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19. The method of Claim 17, wherein the length of the radius is 3-6  $\mu\text{m}$ , and the size of the central angle is 45 to 180°.

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20. The method of Claim 17, wherein the size of the central angle is about 60°.

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21. The method of Claim 17, wherein the fan-shaped concave/convex portions are disposed on one pixel in large numbers, the fan-shaped concave/convex portions being divided into two groups consisting of a first group where the interval between the centers is 0-3  $\mu\text{m}$  and a second group where the interval between the centers is 8-12  $\mu\text{m}$ .

22. The method of Claim 16, wherein the line-shaped

concave/convex portions have a line width of 3-5  $\mu\text{m}$ .